

### **REMARKS**

Claims 1-20, 22-30, 32-35, 37-38 and 42-54 remain pending in the application, in which claims 1, 18 and 22 are currently amended. Claims 21, 31, 36 and 39-41 have been cancelled. Claims 37 and 38 are allowed.

### **Objections to the Specification**

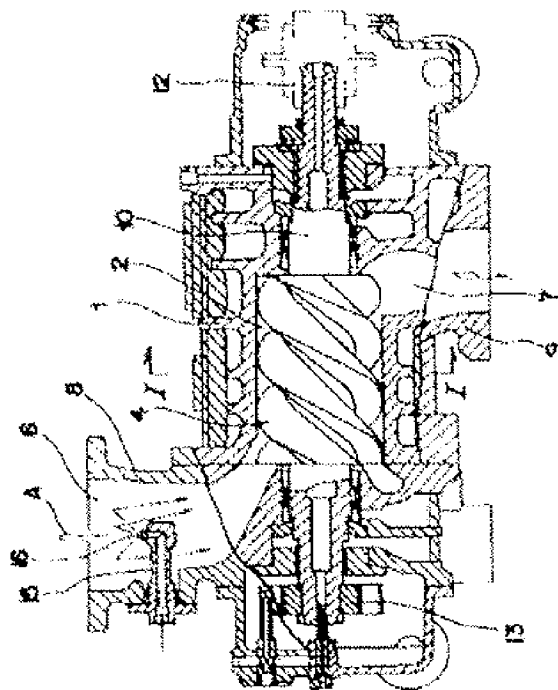
The disclosure is objected to because there are no descriptions for Figs. 6-10 in the “Brief Description of the Several Views of the Drawings” section. As currently amended, the specification now includes descriptions for Figs. 6-10 in the “Brief Description of the Several Views of the Drawings” section. As such, Applicants respectfully request that the objection be withdrawn.

### **Rejections under 35 U.S.C. §102**

Claims 1, 9, 10, 18, 22, 34-36 and 54 are rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent Application Publication No. JP60-017283 to Nishimura (hereinafter referred to as “Nishimura”).

Independent claim 1, as amended, is directed to a pump comprising: a rotor and a stator; a housing enclosing the rotor and the stator, the housing having an inlet for receiving a first fluid, and a port positioned downstream and spaced apart from the inlet; and means for injecting a second fluid into the housing through the port in a first direction not in direct opposite to a second direction in which the first fluid flows into the housing via the inlet, wherein the second fluid acts on deposits on a surface of the rotor and a surface of the stator.

In rejecting claim 1, the Examiner compares the inlet port 6 of Nishimura to the port of the claimed invention. *See, page 2.* However, Applicants respectfully submit that the inlet port 6 of Nishimura and the claimed port are not comparable. As illustrated in the drawing of Nishimura below, the inlet port 6 is for intake of exhaust gas and the nozzle orifice 16 is for spraying reactive chemicals that remove deposits in the rotor chambers 2 and 3.

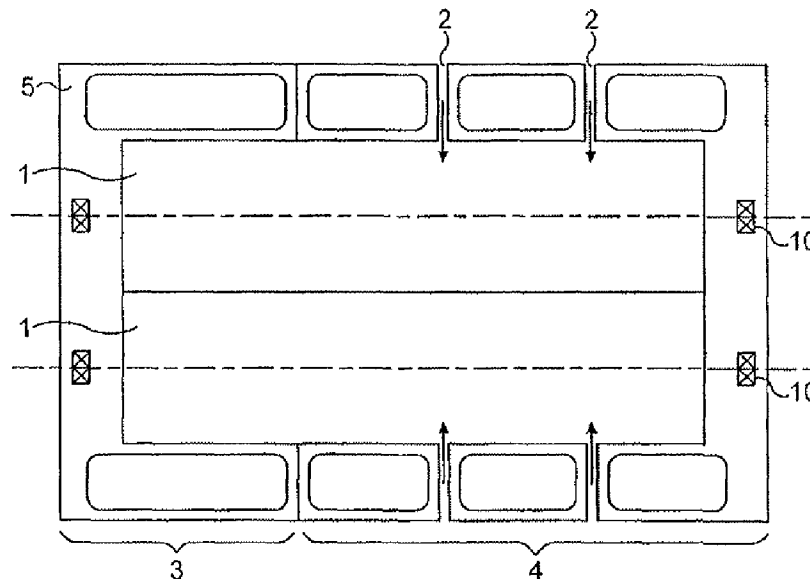


In the claimed invention, the port is for injection of deposit-removing fluid, instead of the exhaust gas supposed to be evacuated by a pump. For example, claim 1 provides “*means for injecting a second fluid into the housing through the port... wherein the second fluid acts on deposits on a surface of the rotor and a surface of the stator.*” Applicants acknowledge that there is a “port” in the “inlet port” of Nishimura. However, considering the different functions of the claimed port and Nishimura’s inlet port, they

are not comparable. From a functional point of view, the claimed port is in fact more comparable to Nishimura's nozzle orifice 16, as they all spread fluids for removing deposits in a pump.

Nishimura fails to teach *"a port positioned downstream and spaced apart from the inlet"* as the claimed invention. As shown in the drawing above, the nozzle orifice 16 is placed in the middle of the inlet port 6. Clearly, they are not spaced apart as so limited by the claimed invention.

Moreover, Nishimura fails to teach *"means for injecting a second fluid into the housing through the port in a first direction not in direct opposite to a second direction in which the first fluid flows into the housing via the inlet."* As illustrated in the drawing of the application below, the first fluid is sucked into pump 5 at inlet 3, and the second fluid is injected into the pump 5 at ports 2. Clearly, the first and second fluids do not flow in directions against each other. This is not the case in Nishimura. In Nishimura,



the jet nozzle 15 sprays fluid in a reverse direction against the flow of exhaust gas A.

*See, abstract.*

It would not have been obvious for a person skilled in the art to modify Nishimura into an apparatus where the jet nozzle 15 does not spray fluid in a direction against the flow of exhaust gas A. Nishimura purposefully takes advantage of the exhaust gas A to spread the deposit-removing fluid from the jet nozzle 15. Thus, it would be advantageous that the nozzle orifice 16 faces against the flow of exhaust gas A, in order to spread the deposit-removing fluid widely. Any modification changes such arrangement would defeat the purpose of Nishimura, and therefore not be obvious to people skilled in the art.

As such claim 1 is not anticipated by Nishimura under 35 U.S.C. §102(b). For the same reasons discussed above, independent claims 18 and 22 are not anticipated by Nishimura, either. Accordingly, claims 9, 10, 34-35 and 54 that depend from independent claims 1, 18, or 22 and include all the limitations recited therein are not anticipated by Nishimura, either. Applicants note that claim 36 is currently cancelled, and therefore withdrawn from consideration.

### **Rejections under 35 U.S.C. §103**

Claims 2, 11, 12 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nishimura. As discussed above, independent claims 1 and 22 are patentable over Nishimura. Accordingly, claims 2, 11, 12, and 23 depending from claims 1 and 22 are also patentable over Nishimura under 35 U.S.C. §103(a).

Application No. 10/531,563

Amendment dated November 24, 2009 Reply to Office Action of June 24, 2009

Attorney Docket No.: M02B155

Claims 3-8, 13-17, 19, 20, 24-30, 32, 33, 42-52 are rejected under 35 U.S.C.

§103(a) as being unpatentable over Nishimura in view of U.S. Patent Application

Publication No. 2002/0141882 to Ingistov et al. (hereinafter referred to as “Ingistov”).

As discussed above, independent claims 1, 18 and 22 are patentable over the cited prior art reference. Accordingly, claims 3-8, 13-17, 19, 20, 24-30, 32, 33, 42-52 that depend from claims 1, 18 and 22 and include all the limitations recited therein are patentable over Nishimura in view of Ingistov under 5 U.S.C. §103(a).

Claim 53 is rejected under 35 U.S.C. §103(a) as being unpatentable over Nishimura in view of U.S. Patent No. 4,984,974 to Naya et al. (hereinafter referred to as “Naya”). As discussed above, independent claim 1 is patentable over the cited prior art reference. Accordingly, claim 53 depending on claim 1 and including all the limitations recited therein is also patentable over Nishimura in view of Naya under 5 U.S.C. §103(a).

### **Allowed Claims**

Applicants acknowledge and appreciate that claims 37 and 38 are allowed.

### CONCLUSION

Applicants have made an earnest attempt to place this application in an allowable form. In view of the foregoing remarks, it is respectfully submitted that the pending claims are drawn to a novel subject matter, patentably distinguishable over the prior art of record. The Examiner is therefore, respectfully requested to reconsider and withdraw the outstanding rejections.

Applicants do not believe that any additional fee is due, but as a precaution, the Commissioner is hereby authorized to charge any additional fee to deposit account number 50-4244.

Should the Examiner deem that any further clarification is desirable, Examiner is invited to telephone the undersigned at the below listed telephone number.

Respectfully submitted,

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